

The beautiful is as useful as the useful.—Victor Hugo.

Division of Birds

BIRDS AND NATURE

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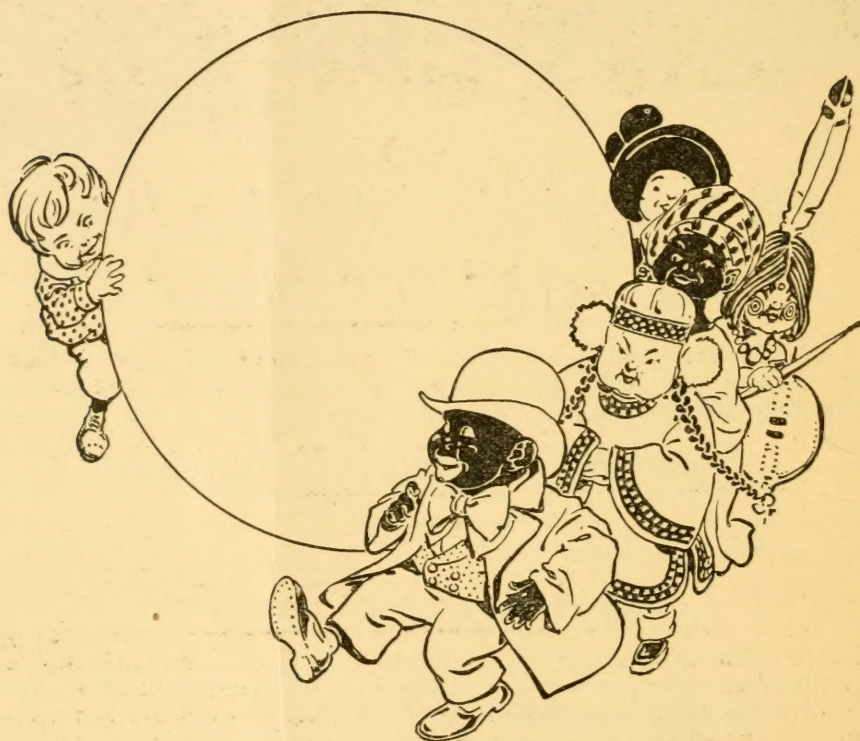
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BIRDS AND NATURE.

ILLUSTRATED BY COLOR PHOTOGRAPHY.

VOL. X.

NOVEMBER, 1901.

No. 4

AN AUTUMN EVENING.

In scattered plumes the floating clouds
Went drifting down the west,
Like barks that in their haven soon
Would moor and be at rest.
The Day sank down, a monarch tired,
Upon Night's sable breast.

The wind was all but hushed to sleep,
Yet now and then it stirred
A great tree's top, and whispering,
Awoke a slumbering bird,
Who half aroused, but only chirped
A song of just a word.

And in the west the rosy light
Spread out a thousand arms,
Each with a torch, whose crimson flame
Stretched o'er the peaceful farms,
And o'er the yellow corn, that lay
Unconscious of all harms.

Then changed into a waste of blue
A desert tract of air,
Where no rich clouds, like Indian flowers
Bore blossoms bright and fair;
And over all, a sense of want
And something lost was there.

—Walter Thornbury.

THE PINE GROSBEAK.

(*Pinicola enucleator.*)

Ere the crossbills leave the pine woods,
Ere the grosbeaks seek the ash seeds.
—Frank Bolles, "The Log-Cock.

The name grosbeak, or great beak, is a common name for a number of birds that possess large, thick and strong bills which are adapted to crushing fruits and seeds. Unfortunately this name has been indiscriminately applied to the representatives of several bird families.

The true grosbeaks are related to the goldfinch, the finches, the sparrows, the buntings and the crossbills. In fact they have some of the marked characteristics of the latter birds, as neither develop the fully adult plumage for several years.

The Pine Grosbeak must be sought in the northern regions of the northern hemisphere, where the vast forests of cone bearing trees are found, or among the coniferous trees of the high altitudes of the western mountain regions of the United States. In the latter place they are not abundant. It seems to be at home and contented only in the cold, crisp air of the far north and seldom seeks a more temperate climate except when the winters are unusually severe or there is a scarcity of food in its native haunts. It is a frequent winter visitor to the northern tier of the United States and is quite abundant, at this season, in some portions of New England. Except during the nesting season the Pine Grosbeaks are gregarious and are frequently seen in flocks of fifteen or more individuals. In the winter climate of the northern United States these flocks contain many more immature than adult birds, the younger ones seeming to be less able to withstand the severer cold of more arctic regions. Thus in this district the more brilliant plumage of the fully adult male is rarely seen, and becomes a valuable acquisition to the naturalist, for the younger birds and the females are less showy. Speaking of the beautiful male bird, some

one has said, "Scarcely can the southern climes send us a more brilliant migrant than this casual visitor from the north." There is a slight variation in the plumage coloration and in the shape of the bills of the Pine Grosbeaks of widely separated regions. These variations have led ornithologists to group these birds under geographical races giving each race a varietal name.

Speaking of the Pine Grosbeaks of Siberia Mr. Seeböhm says, "Almost all the forest districts are hilly and in the north, as the trees become smaller, they are also more thinly scattered over the ground and the interminable extent of wood is broken by occasional flat, open spaces and open marshes which become gray with flowers as soon as the snow melts. The scenery is much more park-like than further south and these birds are much more plentiful and more easily seen. In the large pine forests they prefer the banks of the rivers or the outskirts of some open place and may often escape detection because of their habit of frequenting the tops of trees. Within the Arctic circle many of the trees are small and on the hilly ground they are scattered in small clumps. In places like these the Pine Grosbeaks may often be seen perched conspicuously on the top of a spruce fir, twenty or thirty feet from the ground but looking so much like the last spike of the tree as frequently to escape notice."

The Pine Grosbeak is a retiring bird and would seem to be somewhat shy as it does not frequent the roadside or inhabited places except when forced to do so by the lack of food. This, however, is not the case, for in the forests where it makes its home it is not difficult to approach it. It will frequently alight



PINE GROSBEAK.
(*Pinicola enucleator*.)
 $\frac{2}{3}$ Life-size.

and begin feeding within a few feet of an observer.

The song of the European form of this species is said to be "exceedingly agreeable, varied, melodious, sonorous—sometimes strong, sometimes soft." It is also a mocker and to a limited extent will imitate the voices of other birds. Dr. Cones likens its song to that of the purple finch and says that during the late summer and winter it is "clear, sweet and flowing." Its call note is single, sweet and plaintive not unlike that of the well known bullfinch.

Pine seeds seem to form the principal food of the Pine Grosbeak though it also feeds extensively on those of the birch, alder and related trees. At times it will descend to the ground and gather the seeds of herbaceous plants and may eat a few insects. Dr. Dall writing of the Pine Grosbeak as he found it in Alaska, says: "I have opened the crops of a great many and always found them filled with what I for a long time supposed to be spruce buds, but on closer examination I found that they were the hearts of the poplar buds, with the scales and other external coverings carefully rejected. I have never found anything else in their crops." In those regions where the mountain ash abounds the berries of this beautiful tree form a very important part of their diet whenever it frequents such a district.

The outer wall of the home of this denizen of the forest is constructed of a framework of slender fir or pine twigs. Inside of this wall and projecting above it is placed a lining of fine roots and grass woven with a fine hairlike lichen.

The Pine Grosbeak seems to bear confinement, but when caged it is said that after the first moulting the crimson color of the plumage is replaced by a bright yellow. Mr. E. W. Nelson observed these birds in Alaska and says, "During winter, while traveling along the frozen surfaces of the water courses of the interior it is common to note a party of these birds busy among the cottonwood tops, uttering their cheerful lisping notes as they move from tree to tree. I have frequently passed a pleasant half hour on the wintry banks of the Yukon, while making a midday halt and waiting for the natives to melt the snow for our tea, listening to the chirping and fluttering of these birds as they came trooping along the edges of the snow-laden woods in small parties. They rarely paid any attention to us, but kept on their way and were, ere long, lost to sight in the midst of the bending tree tops and silence again pervaded the dim vistas of the low woods. Beyond the faint, soft call note uttered as the birds trooped along through the forests, I never heard them make any sound."

THE ANNUAL NOVEMBER CONFERENCE.

October had gone. In north central Illinois many trees had lost all their gaily colored leaves; others were fast becoming bare. With the exception of a few goldenrod and aster blooms, the splendid autumn flowers were buried in banks of dead leaves. The sun cast daily smaller shadows. Only once in a while could the tree sparrow capture a belated beetle. The quiet of the woods was broken by the busy little Mr. Squirrel gathering his winter's nuts.

The pecking of Woodpecker Brothers

& Company was busily kept up; but most of the sweet-voiced birds had gone south.

The merry voices of gay nutting parties were drowned in the rustling of dry leaves. Even Mrs. Chipmunk was startled if she heard before she saw her own Mr. Chipmunk coming toward her. The woods seemed almost lifeless.

Missing the bustling, restless life of their active summer neighbors, the birds still in the forest were beginning to feel lonesome. Some were loth to leave their

homes and familiar places. Others who were touched with a desire to join the rovers were unwilling to forsake their old friends when skies were so dark and days so dreary.

Finally they agreed to call a mass meeting to see if they could agree to all go or to all stay together.

Then arose the question of how to get word to all the birds. Although he knew that he was out of tune, cheerful yellow-breasted Mr. Meadowlark said that he would do his best at whistling through the meadows for the purpose of letting his neighbors know of the meeting. Mr. Bob White agreed that instead of always calling his own name, he would go through the fields and along the edges of the timber where he was best known, calling his comrades.

Mr. Blue Jay, Mr. Black Crow and Mr. Black-Capped Chickadee, who are always in voice, were urged to help. Mr. Crow was asked if he could not call "come" as easily as "caw." Upon making a trial he found that he could. Since he has no fear either in the fields or near the towns, he was sent to scour the country roundabout. Mr. Chickadee, who keeps a summer cottage in the thick woods, was asked to see that all the timber birds were called.

As the season was daily growing more cheerless, and as it was feared that some birds might not promptly obey the summons, the fearless, fighting Mr. Jay was told to arrest all heedless or laggard birds. As this command just suited Officer Jay, he started off in high spirits. Having no patrol wagon at his call, he took along Mr. Chickenhawk to help him manage those who must be brought by force.

Although they said that they were anxious to have all the birds present, the Woodpecker Brothers and their partner, Mr. Nuthatch, said that they could not drop their work to roam over the state, but that they would help by pecking and pounding as noisily as they could so that the gathering birds might know in just which timber to alight.

At last the day for the meeting came. The sky was sunny, but the air was chill. It was about the middle of November and the days were growing shorter and

shorter. You would be surprised to know how many different birds were present.

The great strong Mr. Bald Eagle was chosen to conduct the meeting. This he did in good style. He told the object of the meeting in a little speech: "Neighbors, friends and relations," he said, "we have come together to discuss a very important matter. Spring came with all its beauties, fresh promises of life and new chances. Warmed with renewed vigor, we began our year's work with great vim. You all know how hard every one of us has worked in building a home and rearing a family. Summer, with its plenty, has passed and our children are grown. Shall we join those of our old neighbors who have already left for other homes in the sunny southland? Or, shall we face the winter's storm and cold here? Let us hear from every one present. Which shall we do?"

As everyone waited for someone else to speak first, it was as quiet as Quaker meeting. After waiting a while, as jolly Mr. Robin is so well known and liked, Chairman Eagle called upon him. Robin replied: "My summer in Illinois has been a pleasant one. Here are many fond ties. Wife and I have had a cosy home in which we have raised four of our five children. They are now happily flying about. We have but one sorrow. A cruel stone from a sling-shot killed our other baby." Here Mrs. Robin cried so that he could not go on until he had pulled out his handkerchief and wiped his eyes. Her cousins, Mrs. Thrush and Mrs. Bluebird, tried to quiet Mrs. Robin by fanning her and holding some smelling salts to her nose. Choking back a lump in his throat, Mr. Robin went on talking. "We have found strawberries, mulberries, cherries and other fruits in plenty, and have never lacked for insects that are our reliance for food. But winter with ice and snow is coming. Jack Frost has already been here and has driven away most of our bugs and worms. Our bills are not strong enough to crack nuts. Wild berries which we can eat are almost gone. Unless the kind children scatter us plenty of crumbs, if it freezes so hard that we can get no more insects, sorry as we are to leave, we must go to a warmer country. But

we will go no farther than we must, and will return as soon as we can. We remember that last year in December there was a spell warm enough for bugs to creep out and we came back for a five days' visit. We prefer to remain if we can get a living."

This started them all to talking, and they had to be called to order. Singer Bluebird said that he, like the Robins, cannot do without his bugs and worms, and must go where he can get them or starve.

Mr. Quail, who likes to be called Bob White, said: "My dear plain little wife and my children very much prefer bugs. We are all so fond of them that we relish even potato beetles. Yet, in winter time—unless they are covered by a deep snow, we can find grains, weed seed and other things which will keep us from starving. In that case, we can go to the poultry yard and eat with the chickens. We fear freezing most. After all the good work which we do for the farmer, he might well afford to provide us a shelter. But it is to be supposed that he does not think of it. However, we will risk staying here."

Two chums, Mr. Crow Blackbird and Mr. Red-Winged Blackbird, who had been driven from a marshy place by Blue Jay, sat side by side on the same limb and were having fine sport making faces and winking at each other while the speeches were being made. Both can help the farmer. Mr. C. Blackbird can eat mice and the scattered corn kernels. Mr. R. W. Blackbird can pick smartweed, ragweed and other weed seeds. Yet both declared that they could not get along without insects and they did not mean to try. "Down south," said Mr. R. W., "if insects are scarce, there are plump rice kernels which taste better than old weed seed."

Up spoke Mr. Common Crow: "I would not be so particular. I teach my children to eat corn and mice and we can find both around the corncrib. And we can always find a frozen apple in the orchard, or some potatoes or turnips in the garden, or a forgotten pumpkin in the field. These taste very good. If we are very hungry, we can pick up dead rabbits and birds. We will stay so as to be here when the farmer

begins his spring work. We are not afraid of his scarecrows. They never hurt us. We help the farmer so much that he will surely let us get a living around the farm. He will never miss what we eat."

A pair of Turtle Doves on a limb of a neighboring tree softly sang, "Coo, coo, we will stay, too."

There were several of the Woodpeckers present. The little black-and-white one with red patches on the sides of his neck, who is called Downy Woodpecker, tried to speak for the whole family. We all must have our insects. God has given us long, strong bills so that we can peck holes into the wood in which bugs and grubs are hidden. Sometimes merely our tapping charms them so that they crawl out for us. If they do not, we can run out our long tongues and catch those beyond the reach of our bills."

His big red-headed brother went on: "Oh, yes! we can find enough to eat. I can leave the trees for hunting places for the rest of the family. There is plenty of food good enough for me in fence posts and telegraph poles. Besides, I can eat cedar berries, nuts and other things. No need for me to go off on a tramp in search of food. Ha, ha!" chuckled he, "I have already begun to lay aside for winter. You'll not catch me starving here. I know just where to find knot holes, cracks in railroad ties, loose pieces of bark and loose shingles on houses which hold a good supply of beech nuts and acorns. If I find an apple on the tree, I can bore into it for the seeds. Then there are choice bits to be found around the cow sheds and barns. We have no thought of going away."

The pair of Turtle Doves nestled closer together and again sang, "Coo, coo—we will stay, too." Everybody smiled at their loving peace of mind.

"I have already begun to hollow out a hole in a high tree for my winter home," said Downy Woodpecker.

"So have I," said the pretty Golden Winged Woodpecker, who is nicknamed High Hole; "and it is in a place that just suits me in the tip top of a very tall tree."

Mr. Nut Hatch rose to his feet. "I

too hammer into cracks and holes such things as sunflower seeds, corn and nuts for winter use. Mr. Chickadee and I have agreed to work together. I hunt only on the trunks and larger limbs, leaving the smaller branches for friend Chickadee. If he can not find quite enough he knows how to hunt around houses. Children who see him only when snow is on the ground call him Snowbird and sometimes kindly throw him crumbs."

"I can eat buds of some trees and seeds, too," added Mr. Chickadee.

Just then a Northern Shrike alighted in their midst. In an instant there was a flutter of great alarm. The cool headed chairman bade everybody to sit still and he would see to it that nobody was hurt. Because of his cruelty, you know, the Shrike is often called Mr. Butcher Bird. He catches other birds which he hangs on great thorns while he tears and eats their flesh. Even the English Sparrows are afraid of him.

Chairman Eagle explained the purpose of their meeting and Mr. Shrike promised to hurt no one. Looking around he said, "I have just come from my summer home in the north to spend the winter with you. I see gay little Winter Wren hopping around. As soon as there comes a northern snowfall heavy enough to cover the weed seeds there Mr. and Mrs. Snow Bunting will join us."

"How glad we will be to see them; glad to see them!" chattered happy Chickadee. "We will have a jolly game of snowball. Chick-a-dee-dee-dee! Da-da-day!" And he hopped along and around a branch one of the most light-hearted creatures living.

Mr. English Sparrow wished to say something. "Our flock can always find a warm place and something—"

Just then a hoarse voice was heard calling, "Who, who, who, who, ar-r-r-re you?" As the feathered people must ever be on the alert to protect their lives, in a second all was as quiet as the grave. Thinking that some better dressed bird only meant to make fun of him and his many wives Mr. English Sparrow flew into a passion and began to pull off his coat.

Mr. Eagle told the crowd that there was no need of a scare. "That," said he, "is only Mr. Barred Owl in yon tree. He has been roused by our talking. Put on your coat, foolish Mr. Sparrow."

Mr. Jay could not let slip the chance to twit his neighbor. "Ha, ha!" said he; "you had better get enough more wives to teach you how to behave yourself."

Everyone looked around laughing. Thinking that night had come and that his friends from the next timber had come to make a call, Mr. Owl again broke out: "He-he-he-he, hi-hi-hi-hi, ha-ha-ha-ha!"

Mr. English Sparrow was vexed and ashamed, but being afraid to get into a fight he flew off.

As it was getting late in the day the chairman said that the meeting must close. "It is useless to talk longer," said he. "It is plain that our pretty Meadow Larks and other insect eating birds must move or starve. We shall be very sorry to see them leave and hope to meet them again on their return next spring. They are needed at the south. May God speed their journey."

"But some of us must remain or shirk our duty. The Turkey Buzzards and their helpers must be here to clean up the fields and groves and to clear away dead things washed ashore. If these things are not done the foul air next spring may make much sickness. Woodpeckers must keep at their work or plants will suffer next summer. Those who can eat seeds must be active or the farmers will not be able to keep down the weeds. Grouse, Jay, Wax Wing and others who can manage berries and nuts must not leave or in a few years trees and underbrush will be so thick that there will not be room for them to branch out. Even our hated Mr. English Sparrow is needed to pick up droppings in the street and waste around houses. We are all needed—each to do his own bit of work in his own place and way. Although that may not be just what we prefer, may we all do our duty just as cheerfully as man's friend, Mr. Turkey Buzzard, does his unpleasant tasks."

LOVEDAY ALMIRA NELSON.





FIELD SPARROW.
(*Spizella pusilla*.)
 $\frac{1}{6}$ Life-size.

THE FIELD SPARROW.

(*Spizella pusilla*.)

A bubble of music floats
The slope of the hillside over;
A little wandering sparrow's notes;
And the bloom of yarrow and clover,
And the smell of sweet-fern and the bayberry
leaf,
On his ripple of song are stealing;
For he is a chartered thief,
The wealth of the fields revealing.
—Lucy Larcom, "The Field Sparrow."

The Field Sparrow is the smallest of our sparrows and is quite easily distinguished from the other species by its reddish bill. The common name is misleading, and perhaps it would be more appropriate to call this bird the Bush Sparrow, a name by which it is frequently known. Instead of the field it seems to prefer the pasture, with its weeds and bushes. It will also frequent the shrubby thickets that follow the removal of a forest. This shy bird has a somewhat extensive range, which includes the eastern United States and Southern Canada. It passes the winter months chiefly in those states south of the Ohio river.

The Field Sparrow when frightened does not retreat to the cover of foliage, as does the Song Sparrow, but flies to an exposed position on top of bush or low tree, where it can watch and await developments. In the fall they frequently gather in small flocks. If disturbed all will fly to the nearest bushes, and in perching will cluster close together.

The Field Sparrow is all the more interesting because of its shyness. Mr. Keyser speaks of it as "a captivating little bird, graceful of form and sweet of voice, singing his cheerful trills from early spring until far past midsummer. The song makes me think of a silver thread running through a woof of golden sunshine, carried forward by a swinging shuttle of pearl." Mr. Chapman says: "There is something winning in his appearance; he seems such a gentle, inno-

cent, dove-like little bird. His song is in keeping with his character, being an unusually clear, plaintive whistle, sweeter to the lover of birds' songs than the voice of the most gifted songstress." It is not possible to describe the song in words, for it varies greatly. No two birds seem to have the same song and the same bird may vary its song. Locality also seems to affect its character. It is the sweetest at the going down of the sun and in the early twilight. To hear it then, in the absence of all other sounds, is indeed soul inspiring.

Its delicate nest, too, becomes the lovely character of this little bird. This small house is usually placed near the ground in a low shrub, or on the ground where it is well protected by tall grasses. The nests are not usually found near fence rows, but rather in less public places, on hillsides and nearer the center of the field. When possible, a thorny bush is chosen. The nest is constructed of fine grasses and very fine roots loosely woven together and lined with finer grasses, hair and the delicate bark fibers.

Writing of the finding of a Field Sparrow's nest near the top of a hill, some one has said: "How 'beautiful for situation' is this tiny cottage on the hill! Here the feathered poets may sit on their leafy verandas, look down into the green valleys and compose verses on the pastoral attractions of Nature. One is almost tempted to spin a romance about the happy couple."

DISHRAG VINES.

Margie was cross. It was a rainy day, and she was having to sew; two things she hated.

"I think it might rain on school days. And I wish dish-cloths had never been invented," she exclaimed, jerking her thread into a tangle.

"You ought to move down south," quietly said her aunt.

"Why? Don't they have rain and dish-cloths there?"

"Yes, of course they do; and I will tell you a true story, if you will promise not to complain the least bit for the rest of the day."

Margie promised; and, after threading a needle, her aunt began:

"When I was in Georgia, last October, I saw a queer vine growing over the porch of an old negro's cabin. It looked like a pumpkin vine, with its great coarse leaves, and it had green, gourd-like seed pods, or fruit, hanging all over it. I asked the old colored man, who was hoeing near by, about it, and he said, in surprise: 'Lawsy

me! Didn' you neber heerd tell ob a dish-rag vine afore?"

"'Dishrag!' I echoed.

"'Yes, they grows dishrags on 'em,' he answered. Then, pulling off one of the funny gourds, he cut it in two and showed me the matted fibers inside. It seems when these halves are dried in the sun, that they become something like a tough sponge.

"He seemed very proud of the fact that his wife had used one for a whole year, and asked, in a tone half of pity and half of disgust, 'Does you all hab ter use er rag?' He was pitying me just as I was sorry for him! It was too funny to see him hobble off, shaking his head and laughing at a white woman who 'neber knowed nothin' 'bout dishrag vines!'"

"Will you bring me one next winter, aunt?" Margie asked.

"Do you want to wash my dishes with it?"

"N-no. I'd rather hem cloths, I b'lieve; but I'd like to try it on my doll dishes."

LEE McCRAE.

A SNOW-FLAKE.

Once he sang of summer,
Nothing but the summer;
Now he sings of winter,
Of winter bleak and drear:
Just because there's fallen
A snow-flake on his forehead,
He must go and fancy
'Tis winter all the year!

—Thomas Bailey Aldrich.

NEIGHBORING WITH NATURE.

We were at breakfast one morning, when a loitering breeze from the woods filled the room with delicious aroma. The graceful spring flowers and the wild fruit trees were just beginning a life of promise.

"There's sweet smelling fern in that," exclaimed Charley, sniffing critically.

"I think it's from the crab-apple trees by the chalybeate spring," said grandma.

"No, it's the chicksaw plums by the creek," cried Margaret.

"It 'mells 'ike 'bacco moss to me," murmured Pearl, touching the tip of her nose with her dainty forefinger.

"I know what it is," asserted Grace; "it's the wild cherry tree; it's full of blossoms."

"There's Ginseng in it somewhere," laughingly commented papa.

"Ginseng?" cried the children. "What's that?"

"The name of a plant in the wood. The word is supposed to be of Chinese origin. The Iroquois called the root garentoqucu, literally, legs and thighs separated. The plant belongs to the genus *Pauax*, and it is a great medicine with the Chinese. We export it in large quantities, but northern Asia grows it as well as we."

"And there is some in our wood?"

"Yes, I saw some yesterday near the tobacco-plant bed."

"Can we go for some as soon as we have finished breakfast?"

"Yes, and I will go with you. A walk through the wood will be good for us; I feel like I had slept a hundred years and been one of Tennysons characters in *The Day Dream*."

"And I," said the artist, "will take my pencil and sketching block."

Six plants were found, all having good long roots.

"What you have now would cost you a quarter of a dollar if you were buying it," said papa.

"One could live very well then, by gathering Ginseng to sell," commented practical Charley.

"Why, yes, you remember old Uncle Baskett, the colored doctor?"

"Yes," said Margaret. "He cured toothache by hanging a rabbit's foot about your neck."

"And fits with a four-leafed clover," cried Gracie.

"He made his living," went on papa, "after he was freed, by collecting the roots of Ginseng, *Calamus* and other medicinal plants, and it was then, too, he gained his almost marvelous knowledge of herbs, becoming famous, even among the white people, for his success in curing certain diseases."

"I think this leaf and root are accurate," said the artist presenting the sketch.

"To a 'T,'" cried the children. "You must go with us every walk we take."

Sallie Margaret O'Malley.

Gaunt shadows stretch along the hill;
Cold clouds drift slowly west;
Soft flocks of vagrant snow flakes fill
The redwing's empty nest.

—Thomas Bailey Aldrich, "Landscape."

THE CAROLINA WREN.

(*Thryothorus ludovicianus*.)

This little brown bird is sufficiently hardy to remain throughout the year a resident of the localities which it frequents. This is true except in the northern part of its range, which covers the eastern United States as far north as the states of Wisconsin and Connecticut.

The Carolina Wren does not enjoy the society of men and unlike its relative, the house wren, does not seek "the cozy nooks and corners about the house of man," but rather the distant shrubbery and the forest. Here it hides and is more often heard than seen. In spite of this show of timidity it is not so shy and retiring as it would seem. It loves the privacy and seclusion of the forest yet it will frequently visit the garden and explore outhouses. "If we attempt to penetrate its hidden resorts it hurries away into deeper recesses with a low fluttering near the ground, or scrambling and hopping from one bush to another, very likely mocking us with its rollicking song as soon as it feels perfectly secure.

It is restless and curious like the other wrens. Perhaps it is even more inquisitive than its sister species, for it is certainly more active. Frightened from a favorite perch the Carolina Wren will return and, from a safe cover of foliage, slyly examine the cause that disturbed it, "peering from among the leaves with an inquisitive air, all the while teetering its body and performing odd nervous antics as if it were possessed with the very spirit of unrest." When disturbed it seems to challenge the intruder with a chattering note that has a harsh and decidedly querulous tone.

It seems almost incredible that such a delicate and sprightly being should exhibit so much temper and resentment. Intrusion of its chosen territory by its own kind is resented even more vehemently.

The Carolina Wren possesses a wonderful vocabulary with appropriate notes for all occasions. It is highly musical. Its song is rich and sweet, voluble and melodious, loud and clear and seemingly as happily delivered in one season as in another. Mr. Chapman says: "He is sometimes called Mocking Wren, but the hundreds of birds I have heard were all too original to borrow from others. In addition to his peculiar calls he possesses a variety of loud, ringing whistles somewhat similar in tone to those of the tufted titmouse or cardinal and fully as loud, if not louder, than the notes of the latter."

It is difficult to state its preference in regard to its choice of nesting sites, for it will select any place that suits its fancy. The hollow of a tree or a stump, a thickly branching shrub or a secluded nook in some unfrequented outhouse, perhaps with a knothole for a doorway—all these places are equally suitable and some one of them will meet the taste of this positive little bird.

The materials used in the construction of the bulky nests are any fibrous substance, sticks, leaves, fine grasses and "in fact trash of any kind." The lining of the ball-like nest, which has a side entrance, is made of finer fibers, hair and grasses. In this cozy home are laid from four to six creamy white eggs which are "variously marked with reddish brown and lilac, in a wreath or cluster at the larger end."



THANKSGIVING BY THE NINNESCAH.

It was Thanksgiving Day in Kansas. The sun still shone warm over the yellow cornfields and the brown prairies, tho' there was a hint of frost in the air, and the nearly bare trees stood as ominous tokens of the coming winter. The autumn wind blew a perfect gale from the southwest. Down in the valley by the river the sand was flying in stinging clouds, jerking the few remaining yellow leaves from the cottonwoods, ruffling the waters of the Ninnescah, beating the purple veil from the hedges where the autumn sun had tangled it, bending the long reeds, and drifting in little mounds beneath the wild-plum bushes.

On the uplands where the curly buffalo-grass spread its thick brown carpet, the whitened heads of the golden-rods bent before the wind, the sage-grass waved its long yellow stalks, and the sunflowers rattled their bare stems and brown heads together.

Behind the shelter of one of the sand-hills beside the Ninnescah river a strange assembly of birds and beasts and creeping things had gathered.

A couple of rough-coated, sharp-eared gray coyotes were rolling and tumbling over one another in a good-natured scuffle.

A bunch of quails were picking up the seeds which the wind shook from the sunflower pods above them, while a few brown prairie chickens lay sunning themselves upon the sand.

A long-eared jackrabbit sat erect upon his haunches in solemn dignity, acting as umpire to the coyotes' prize-fight; while his cousin, the little cotton-tail rabbit, nibbled at some tender twigs that grew near by.

A rattlesnake was curled up in the sunniest place to be found, and his companions, the cunning brown prairie dog and the little grey owl, sat near by.

Sand lizards flashed here and there beneath the plum bushes, and the guest of honor—a huge mountain lion—lay dozing within the shelter of the thicket.

Blue jays, blackbirds, brown thrushes, scarlet-coated redbirds, sparrows and yellowhammers flitted from bush to tree: meadow larks trilled their cheerful song; while up on the topmost twig of a tall cottonwood tree a mockingbird swung in the wind and poured his whole soul through his little throat in a wonderful stream of melody.

All the delegates of the animal world being at last assembled, the jackrabbit—in consideration of his dignity—was made master of ceremonies, and called the assembly to order in the following words:

"My honorable friends, the birds and beasts and reptiles of Kansas: We have assembled here today to hold a sort of Thanksgiving service.

"Once every year men gather themselves together to count over the good things that have come to them, and to congratulate one another over the evils they have missed.

"It may occur to some of you that we birds and beasts have little for which to be thankful in these days when dogs and men are so numerous, and when life is attended with so many privations and dangers. But, upon careful thought, I think each one present will be able to add an item to our list of blessings of the past year that will encourage us through the winter days so near at hand.

"Our friend and guest, the mountain lion, will please to address us."

The mountain lion opened his fierce eyes, stretched his huge paws, rose slowly to his feet, and shook the sand from his rough coat.

In spite of the truce of the occasion, the smaller animals eyed him with evident terror, and the prairie chickens fluttered their wings as if ready to fly away from so dangerous a neighbor.

"What have I to be thankful for?" the lion asked in harsh tones. "I am thankful that I have come through the year with a whole hide in spite of dogs and guns and men. I am thankful that dogs are afraid of me, and that men dare not

attack me single-handed. I am thankful that after all my wanderings from the solitudes of the Indian Territory mountains, I have found this comparatively safe retreat among these sandhills and plum thickets. Calves, and pigs, and chickens—and rabbits—have been abundant; so I have no cause to complain of poor living. Kansas would be paradise if it contained neither dogs nor men." He ground out the last sentence with a growl which would have caused both dogs and men to tremble if they had heard it, then lay down and resumed his nap beneath the bushes.

A respectful silence had fallen over the assembly; for "Who shall follow the king?"

As soon as the jackrabbit had gotten over that terrible reference to rabbits enough to steady his voice, he called upon the coyotes for remarks. Both sprang briskly to their feet, and as neither one would give way to the other, they addressed the assembly in alternate barks:

"I am thankful that I am so swift a runner that no dog can catch me."

"And I am thankful because I can scare almost any dog that tries to catch me. How they do run and howl when I turn on them!"

"Chickens and ducks and geese are plentiful; and though the chickens learn to fear us and roost high, ducks and geese are always on the ground and can neither fly nor run."

"This has been a fine season for young pigs; and I also caught several lambs that made tender eating."

"There are such delightful thickets along the rivers and streams, that coyotes have plenty of safe hiding places. I have made good burrows beside the Ninnescah and Arkansas rivers, the Cowskin and Honey creeks, and I go back and forth at pleasure. Yes, Kansas is a pretty good country for coyotes—barring the dogs and men."

"Yes, barring the dogs and men."

Both coyotes sat down and the little cotton-tail spoke:

"Life is hard and dangerous for a rabbit at best. There are so many enemies to fear, and even our swift flight often fails to save us. I have fared well this year. I found a place where the farmer keeps no dogs and owns no gun. To be sure,

he had woven-wire fences around his garden and his young orchard, but I found a cunning little hole in the fence behind one of the grapevines that was just made for a door for a poor little rabbit, and I tell you I have lived high. Such peas and lettuce and cabbage as that man did have! Enough for twenty rabbits like me. Then for a change I nibbled the tender shoots on the grapevines, and now am expecting to get my living this winter by gnawing the bark from several hundred young fruit trees which he has set out. I have already found a hole under the fence. So I have cause to be thankful to-day."

The little prairie dog sat up stiffly and tried to look dignified as he addressed the assembly.

"Life has been full of ups and downs for me and for my friends, the rattlesnakes and owls. We had made a fine burrow in a broad pasture, and all last year we lived there in peace. This year the man who owned it concluded to plow it up for a cornfield; and the first thing he did, he turned the water from a slough right into our beautiful prairie dog town and flooded all our carefully dug homes. Many of my brothers and cousins were drowned or rushed out of their holes only to be slain by the dreadful dogs and men.

"I was more fortunate, because I had run one of my tunnels in an uphill direction for fear that water might some time trouble us. When the flood came I retreated to this high point and saved myself, altho the water almost reached me, and I was obliged to stay there for several days before I could make my way out.

"Now I have a pleasant home here among the sandhills, and I have been careful to dig a good upper story with an opening through which I can escape in time of need. The rattlesnake and the owl share my humble home, and we live in peace together."

The owl nodded his wise head, and the snake shook his rattles in approval of this address which included themselves, and made it unnecessary for them to add their voices to the speechmaking.

A little green lizard roused himself from his warm place in the sun and added his squeaky voice to the general conference:

"I know nothing about dogs and men. My brothers and I live here upon the

sandhills where insects are plenty and enemies are few. We spend hours in basking in the delightfully hot sun, and if any noise alarms us dart to our hiding places beneath the roots of the bushes or under some rotten log or tree. We are of several colors, gray, green, yellow or brown, and when we lie still upon the sand or on logs or under leaves it is hard for any beast or bird or man to see us. We may have few blessings, as the world goes, but we at least have nothing of which to complain."

The prairie chickens were next called upon for an account of themselves, and answered:

"We are the sole representatives of the great coveys of birds of our kind that used to make their homes upon these prairies. Their drumming could be heard within the thickets, and the swift whirling of their brown wings as they beat the air in their diagonal flight. Life was a pleasure to prairie chickens in those good old days before we were born.

"Now it is different. Men learned to consider our flesh a delicacy and hunted us down. They even grudged us the grain that we gathered from their broad wheat and corn fields and treated us as common robbers. Now only a few of us are left, and we dare not call our lives our own. We have learned to be very shy and to hide in the most solitary places. Still, life is not all trouble. The winters in Kansas are short and usually mild, there are plenty of good warm thickets and hedges, and there is always plenty for birds to eat, unless the snow is uncommonly heavy. So we manage to be happy and take each day as it comes."

The quails trooped forward as the prairie-chickens ceased speaking.

"We are the farmer's friends," said they, "and therefore the farmer is friendly to us. We eat the bugs and worms that would destroy his crop. We take a little of his grain now and then, but we more than repay the damage by our warfare upon the bugs.

"We have been so fortunate as to find a farmer who appreciates us, and will allow no one to shoot us. So our year has been peaceful, and we have been bountifully fed."

An ungainly toad hopped forward as the quails ceased speaking:

"I do not look much like a quail, and can neither fly nor run nor sing; but I also am the farmer's friend, and am always ready to seize my opportunities when they come in the shape of flies and bugs. I may not be beautiful, to some unappreciative eyes, but I am at least useful."

The birds having selected the chattering jay to speak for them, he raised his voice as follows:

"My friends desire me to say that our lives are lived above most of the things that annoy the rest of you. Floods and dogs and fences do not trouble us: still, we have dangers enough of our own. There are snakes that climb to our nests and destroy our young. There are prowling cats, and pouncing hawks, and boys with bean-shooters, and men with guns, all of whom are lying in wait for our lives. We are so common and so numerous that men fail to appreciate what we do for them. We make their groves bright by our brilliant plumage, and gay with our cheerful songs. We eat millions of caterpillars and bugs and worms. To be sure, we eat some of the grain and peck the ripest fruit, but then that should be looked upon as our just reward for our labors in men's behalf. Some of us will soon be taking our flight to southern climes, but many of us will remain here in the friendly shelter of the thickets until spring comes again."

What more the blue jay might have said was cut short by a great crackling of the bushes, which startled all the birds and smaller animals, and caused even the mountain lion to raise his head and sniff suspiciously.

Their alarm was quieted by the appearance of an old white horse who looked around upon the assembly and asked:

"What is all this? How does it come that coyotes and rabbits, birds and lizards and insects and lions"—very respectfully—"are associating in peace together?"

The object of the meeting was explained to him, and he was asked to add his word to the Thanksgiving service.

"What have I to be thankful for? Look at my bones almost sticking through my skin, my knees strained and my eyes almost blinded by pulling too

heavy loads, my wind broken by hard driving, my skin scarred by cruel blows. Life has been all hard work, with scanty food and little rest. What have I to be thankful for? I do not know, unless it is that my cruel master died last night, and can never beat and curse and starve me any more. This is scanty pasture here among the sandhills, but it is better than a full manger, and curses and abuse therewith. Often the best thing that can happen to a horse is to have his master die. And so I am duly thankful."

As all had now been represented, the jackrabbit said:

"My friends, the reports have now all been made. We have heard many pleasant things, and many things which make us sad. I think, however, that each one has found some cause for thanksgiving, even though his life is hard and filled

with danger. All of us have learned that there are troubles and difficulties in the lives of others, many of which do not afflict us, and for this we should be duly thankful. From lions to lizards is a long step in the animal world, but there is a chain of common experience all the way through, binding us together.

"Let us remember through all the year to come, that there is no life without trial and privation, without hope and blessing, without cause for thanksgiving. Let us sympathize more with one another, think less of our own trials, and look oftener at the bright spots that come into our lives.

"The Thanksgiving Assembly for the year Nineteen Hundred and One is now adjourned."

MARY McCRAE CULTER.

Wildly round our woodland quarters,
Sad-voiced Autumn grieves;
Thickly down these swelling waters
Float his fallen leaves.
Through the tall and naked timber,
Column-like and old,
Gleam the sunsets of November,
From their skies of gold.

O'er us, to the southland heading,
Screams the gray wild-goose;
On the night frost sounds the treading
Of the brindled moose.
Noiseless creeping, while we're sleeping,
Frost his task-work plies;
Soon, his icy bridges heaping,
Shall our log-piles rise.

—John Greenleaf Whittier, "The Lumberman."





BLACK-POLL WARBLER.
(*Dendroica striata*.)
Life-size.

THE BLACK-POLL WARBLER.

(*Dendroica striata*.)

Warbler, why speed thy southern flight? Ah, why,
Thou, too, whose song first told us of the spring,
Whither away?

—Edmund Clarence Stedman.

Few birds have a wider and more extended range than the Black-poll Warbler. Wintering in the southern United States, Central America and the northern part of South America, they move northward in the spring, reaching Greenland and Alaska in June. Their range extends to the westward as far as the Rocky Mountains. Their breeding range is nearly confined to the regions north of the United States.

This little bird which travels so extensively is a little later than many of the warblers in arriving at its summer home, but it seems to waste little time on the journey, as it flies rapidly and stops but little to search for food. These words of the poet,

"And warblers, full of life and song—

All moving swiftly on their way,"
truthfully illustrate the flight of the Black-poll in its spring migration.

This species exhibits habits similar to those of the flycatchers and "may be considered as occupying an intermediate station between the flycatchers and warblers, having the manner of the former and the bill partially of the latter." There is no better illustration of the saying that "The nice gradations by which nature passes from one species to another, even in this department of the great chain of beings, will forever baffle all the artificial rules and systems of man."

The Black-polls are at home not only in the woods but also in the tops of the tallest trees. They prefer those forests that border on water courses or swamps where, flying from branch to branch they quickly catch the winged insects with a

snap of their bills not unlike that of the flycatchers. Like the flycatchers, too, the color of their plumage is beautifully adapted to obscuring them in their dark green foliage retreats.

Standing on the very tip of some evergreen tree, "the chaste little figure striped in half mourning and capped in jet-black," will burst out in a happy song and then quickly fly into the dark recesses of the forest.

The female shows a strong attachment for her nest and exhibits great anxiety on the approach of any being, "beating her wings along the branches in the utmost distress, or one may still hear her sharp chipping note of alarm as she disappears in the almost impenetrable growth of small black spruce."

The nest is interesting. It is usually placed on a large branch at its junction with the trunk of the tree. A cone-bearing tree is selected and the spruce is preferred, as in it the nest is more perfectly obscured. The Black-poll's house is not the delicate structure that one would expect to find as the home of so dainty a bird. This bulky structure is usually placed not higher than six or eight feet from the ground. It is constructed from the fine twigs and sprays of the evergreen trees and fine roots woven with weeds, moss, lichens and vegetable and animal hairs. The lining consists of fine grass and feathers. Though the external diameter of the nest is fully five inches, the internal diameter seldom measures over two inches.

Mr. Langille has beautifully described the song of the Black-poll. He says,

"That song, though one of the most slender and wiry in all our forests, is as distinguishable as the hum of the cicada or the shrilling of the katydid. Tree-tree-tree-tree-tree-tree-tree, rapidly uttered, the monotonous notes of equal length, beginning very softly, gradually increasing to the middle of the strain

and then as gradually diminishing, thus forming a fine musical swell—may convey a fair idea of the song. There is a peculiar soft and tinkling sweetness in this melody, suggestive of the quiet mysteries of the forest and sedative as an anodyne to the nerves."

TRAGEDY OF THE AIR.

Sweet voices midst the blossoms;
Amidst the meadow-blooms;
Midst mallow-buds and sedges;
Midst flower-hearts by their looms;
Through vistas of the forests,
Round minaret and dome,
The mists of mountain torrents;
Through rainbows of the foam;
Above the rush of waters;
Above the swirl of seas;
Through labyrinths of maremma—
Ah yes, and more than these—
Yet flashes out a remnant
Of bird-wings on the air,
Or floats the song-birds' rhythms
Midst slaughter and despair.
Is there no human pity?
In all the world so wide
Can nothing stay the slaughter,
Can nothing stem the tide
Before, from Nature's pageant,
All bird-life joy is crushed;
Before the wings lie broken
Before the songs are hushed?

—George Klinge.

OFF FOR THE SOUTHLAND.

The first frosts of autumn are a warning to the summer songsters that it is time to prepare for their long trip to the southland. From pine and beech and shrub they come, lingering to catch a stray insect or to feast on the seeds so plentiful at this season of the year, steadily collecting until dozens and fifties and hundreds of a kind are grouped together.

Whether the smaller birds, such as the robins, blue birds and ground birds, select a leader for the trip south, it is difficult to say. Some birds do so, and follow their leaders, as the sheep of olden time followed their shepherd. However this may be, these fine-feathered travelers are careful to remain in a squad as compact as possible, and a note of alarm from one puts the whole legion to flight.

All birds of short flight travel by night only, perhaps because it is a time less beset with dangers from the enemy; perhaps instinct is more in control at night, when there is naught but dreams of the southland to claim their attention. Some authorities have surmised that the birds, like the mariner, are familiar with the heavens and, taking some star or constellation as their guide, fly straight to the summerland of the world. But this last is not a safe conclusion, for the blue birds and robins have been known to err in their choice of a wintering place, some stopping in northern Georgia and perishing there because of their blunder. Others have remained in the Middle States throughout the winter, which grave error the best students of bird-nature have been unable to explain.

But we must not infer from this that birds, as a rule, travel at random and trust to what man calls "luck." These little perching birds are the ones most

liable to mistakes, and a sudden change in the weather or an unusually tempting food supply may lure them to pause too long in these more northern regions, delaying them until it is impossible for them to finish their trip. They have a very short flight, compared to other birds, and it is no slight task for them to accomplish a journey of a thousand miles or more. Yet they go and come with remarkable precision, and there are many instances of a pair nesting in the same tree or crevice or broken limb for several years in succession. When spring returns, some happy experience of the year before brings them back to the loved spot, and there they linger till time for the fall migration.

The birds which are most unerring in their time and course of flight are the water birds. The wild geese are first in this particular, flying high in the air and with the leader ever in full view of the flock, remaining on the wing for from twenty-four to forty-eight hours. To be classed next to these are the herons, the wild ducks and the bittern, the long-legged waders, and the little sand-pipers. All these follow the water courses, the Mississippi and its tributaries being their principal highways.

The ground birds usually follow the prairie countries, though the clearing away of forests has induced them to frequent eastern Indiana and Ohio in recent years. But the western prairie states are their acknowledged summer homes, from whence they gather in companies when autumn comes and, like their fellows, flee to a warmer clime till their favorite dunes and marshes are again habitable.

CLAUDIA MAY FERRIN.

TURQUOIS.

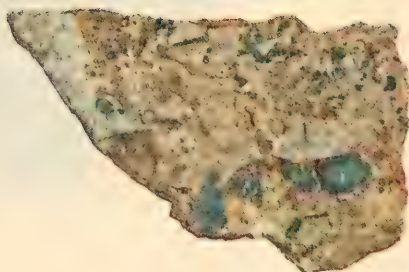
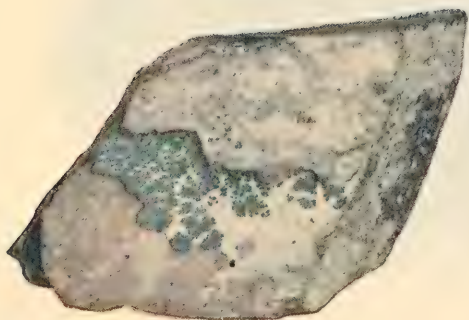
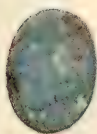
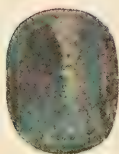
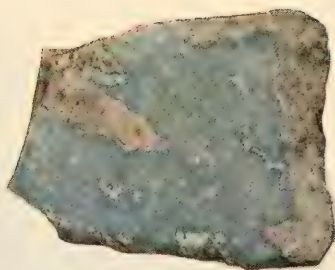
This mineral differs from nearly all others held in favor as gems, in not being transparent and never occurring in the form of well defined crystals. The opal is perhaps the only other gem of which the same may be said. In composition Turquoise is a hydrous phosphate of aluminum, the percentages being: Of water, 20.6 per centum; of alumina, 46.8 per centum, and of phosphoric oxide, 32.6 per centum. Thus in composition as well as opacity Turquoise differs from most other gems, they being usually silicates or some form of silica. Besides the above ingredients Turquoise always contains a small percentage of copper oxide and usually iron, calcium and manganese oxides in small amount. It is the copper compound which undoubtedly gives Turquoise its inimitable color, that color to which it owes its chief charm as a gem. The color varies from sky-blue through bluish-green and apple-green to greenish-gray.

Of these colors the pure sky-blue or robin's-egg blue is by far the most highly prized and is in fact the only standard color for the gem. Green is, however, the most common and the most lasting color of the mineral, and it is one of the faults of the gem that the blue shades often fade to green after being exposed to the light for a time. In a stone of first quality, however, especially a Persian Turquoise, such fading of color is exceptional. A good Turquoise also maintains its color in artificial light. The hardness of Turquoise is 6, in the scale of which quartz is 7. It is therefore somewhat more easily scratched than other gems. Its specific gravity varies from 2.6 to 2.8, being about that of quartz. It does not fuse before the blowpipe, but turns brown and assumes a glossy appearance. By the copper of the Turquoise the blowpipe flame is usually colored green. When heated in a closed glass tube the mineral

turns brown or black and gives off water. Almost any of these tests will serve to distinguish true Turquoise from stones used to imitate it. It has a conchoidal fracture and waxy lustre. On account of its opacity it is almost never cut with facets like most other gems, but in a round or oval form with convex surface. The pieces desirable for cutting rarely reach a large size so that big gems of Turquoise are comparatively unknown.

Much of the so-called Turquoise used in former times was bone-turquoise, or odontolite, made from fossil bone colored by a phosphate of iron. It is obtained mostly from the vicinity of the town of Simor, Lower Languedoc, France. It is sometimes known as Western or Occidental turquoise, in distinction from the Oriental turquoise, most of which came originally from Persia. It does not retain its color by artificial light as does true Turquoise and may be further distinguished by giving off an offensive odor when heated, owing to decomposition of animal matter. Further, it is lighter than true Turquoise and does not give a blue color with ammonia when dissolved in hydrochloric acid, as does true turquoise.

The finest Turquoises have long come from Persia, from a locality not far from Nishapur, in the province of Khorassan. Here the mineral occurs in narrow seams in the brecciated portions of a porphyritic trachyte and the surrounding clay slate. There are several hundred mines in the region and the entire population of the town of Maaden derives its livelihood from mining and cutting the stones. It is said that \$40,000 worth of stones are taken from these mines annually. A pound of stones of the first quality sells at the mines for about \$400 and is worth more than double that price in Europe. There are other Turquoise mines in Persia, but their product is comparatively



445 SPECIMENS LOANED BY FOOTE MINERAL CO.

TURQUOIS.
(New Mexico.)

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Indian Amulet.
Artificially polished.
Natural.

Waterworn.
Waterworn.

Artificially polished.
Artificially polished.
Natural.

small. "Persian Turquoises" have, however, the highest value of all. Other Oriental localities from which the gem Turquoises are obtained are Sinai, in Arabia, the Kirgishi Steppes, in Siberia, and the Kara-Tube Mountains, in Turkestan. Egypt also furnishes large quantities of Turquoise, which does not as a rule retain its color well.

Turquoise is not an uncommon mineral in the United States and many gems of fine quality have been obtained from mines within our borders. The oldest and best known mines are those at Los Cerrillos, New Mexico. This locality was long worked by Indians and Spaniards, as shown by the great extent of the excavations. There are pits two hundred feet in depth and piles showing that thousands of tons of rock have been broken out. Fragments of Aztec pottery, vases, cooking utensils, stone hammers, etc., are found at the mines, and trees of considerable size have grown over the once worked portions. Hence the beginning of the mine workings must at least date back prior to the discovery of America. The mines were worked more or less by Spaniards in the early part of the seventeenth century with the consent of the Indians, or at least without hindrance from them. In 1680, however, a large landslide occurred on the mountain at the mine, and many of the Indian miners were overwhelmed. Believing the Spaniards to be in some way responsible for the accident, and perhaps fearing that their gods were displeased, the Indians rose in their might and expelled the Spaniards from the region. It is one of the few instances in the history of Spanish conquest in America in which the Indians came off victorious. The Indians seem to have prized the Turquoise highly as an ornament, rudely polishing it and using perforated pieces like the one shown in the plate for necklaces. They also decorated their idols and other objects of worship with pieces of Turquoise. The mountain at which the Los Cerrillos Turquoise mines occur is called Mount Chalchihuitl, in allusion to an Indian name that is supposed to have been applied to Turquoise. The mountain is evidently of volcanic origin. The color of most of the Turquoise from this locality is apple-green rather than the highly

prized blue, but some gems of a good blue have been obtained. Mr. Geo. F. Kunz, writing in 1890 of the sale of gems from this locality, says that the Indians usually dispose of them at the rate of twenty-five cents for the contents of a mouth, which is where they usually carry them. Several other localities in New Mexico are worked for Turquoise. In Cochise County, Arizona, is a locality known as Turquoise Mountain, where considerable mining is carried on. Turquoise is also mined in Gila County, Arizona; Lincoln County, Nevada, and San Bernardino County, California. Several of these localities have been opened up recently, the present popularity of the gem perhaps having stimulated its output.

The much higher price commanded by Turquoise of a blue color has led to a counterfeiting of this color by staining green Turquoise or other stones with Prussian blue.

Mr. Geo. F. Kunz in his "Gems and Precious Stones of North America" describes a method of detecting this stain. It consists in washing the stone with alcohol and, after wiping it, to remove any grease, laying it for a moment in a solution of ammonia, when the blue color, if artificial, will largely disappear.

At how early a date Turquoise began to be prized as a gem is not known. The word Turquoise is a French word meaning Turkish, or a Turkish gem, and came to be applied because the gem was introduced into Europe by way of Turkey. It is probable that the gem has been in use from the remotest past among Oriental peoples and it is certainly still highly prized by them. Not the least of the reasons for which it is held in high esteem by them as well as by many Occidental individuals is the good fortune it is supposed to bring to its possessor. One of the proverbs of the Orientals is, "A Turquoise given by a loving hand carries with it happiness and good fortune," and another, "The Turquoise pales when the well-being of the giver is in danger." Numerous other superstitions cling around the Turquoise. One of these, due probably to slight changes of color which the stone may undergo under certain climatic influences, is that if the owner of a Turquoise sickens it will grow pale, and at his death lose its color entirely, but it

will regain its color if placed on the finger of a new and healthy master.

In Germany the Turquoise is said to be in much favor for engagement rings, owing to the belief that if either party prove inconstant the stone will make the fickleness known by weakening in color. It is curious that of the two non-crystallized gems, Turquoise and Opal, one should be considered lucky and the other unlucky. Both are more liable to

changes of color than other gems, and this fact has probably led to the ascription of good or ill fortune to them. In the folk lore of the months Turquoise is connected with the month of December, as the following rhyme bears witness:

If cold December gave you birth,
The month of snow and ice and mirth,
Place on your hand a turquoise blue,
Success will bless whate'er you do.

OLIVER CUMMINGS FARRINGTON.

TO THE MEADOW LARK.

Up from dewy grass,
while yet 'tis dark—

On trembling pinions,
soars the meadow lark;

His brilliant vest
like ruddy orange glows;

From slender throat,
the liquid music flows:

Dear flute-like warbler
of the wood and field,

Before him all his rivals
bow and yield!

The ambient air, with
fluttering wing he beats;

With song ecstatic,
early morn he greets.

High, high he
rises; and his peans float,—

While listening Nature
revels in his note.

—J. Mayne Baltimore.

THE OUTRAGED BIRD.

Once upon a time, nearly seventy years ago, a little boy in a New England town was given a gun on the condition that he must not shoot any birds except those that robbed the corn fields. In those days farmers thought that the crow, brown thrasher and crow-black-bird stole so much grain that it was right to kill them and therefore a bounty, large for that time, of twenty-five cents was offered for every crow destroyed. Nowadays we are wiser and this very boy who has grown into a tall, gray haired, tender hearted man, says that there is not a bird living that is not more of a blessing than a curse.

But to go on with my story. . The little gunner went out one day to see what he could hit with his new gun. About a quarter of a mile from the house he spied a little bird in a tree on the edge of the woods. He took aim and fired. He did not kill the bird, did not even seriously wound it, only injured one of its wings. The bird dropped down at his feet and

began chirping and scolding as if to demand an explanation.

The boy tried to get away but every time he moved aside the poor little outraged creature hopped in his path, never ceasing his vehement, indignant protest against the unwarrantable deed.

Finally the conscience-smitten boy, seeing that there was no escape for him and pitying the wounded condition of the bird, killed it outright, carrying away in his throat a great lump and in his heart a sharp pain that will never die out. Although he is now over eighty years of age he says that he would gladly give all the money he owns if he could undo that one thoughtless act.

When a bird can say so plainly that his life is his own and no one has a right to wantonly take it from him, what must have been the thought of that bird's loving Creator, without whose knowledge and pity not even a sparrow falls to the ground!

FANNIE SKELTON BISSELL.

NICODEMUS.

Nicodemus was a pet blackbird. A sleet storm broke the bough on which the nest was built, and all the birds, save one, were killed in the fall. This one, Nicodemus, was placed in an old hat lined with wool, and kept near the fire until he was ready to fly about the room. He was an apt scholar, and soon knew his name, responding readily to every call. When the weather became warm he was allowed the freedom of the yard. Whenever his mistress saw a stray cat about she would go out on the porch to his cage, strike upon it, and call: "Nicode-

mus!" "Nicodemus!" whereupon the bird would fly into his cage for safety.

One day an aged gentleman called at the house. Nicodemus came into the parlor. At first he nestled upon his mistress' shoulder, but his curiosity seemed much excited, and he soon flew to the old gentleman, alighted upon his bald head, when he began a vigorous scratching.

"For shame, Nicodemus! Come here at once," cried the lady. He obeyed, but with a really abashed look.

BELLE PAXSON DRURY.

A WEED PICTURE.

To one who cares little for natural objects a bit of bottom land in autumn has few attractions, but to the botanist of experience or to a student of nature, from late July till the first frost comes, such a place is a continuous delight.

Perhaps you have seen this very picture. If so, have you studied its details?

A half acre of swamp, which in the springtime presented a dainty background of yellowish green willows and a foreground of green pasture dotted with dandelions and blue violets, has now transformed itself into a Persian effect of gorgeous color. Blue, pink, brown, green, red, purple, white, lavender, yellow, orange brown, and these through tintings and shadings that a modern Titian would never produce, even should he wear his brush to a stub, for the very simple reason that he couldn't.

Plant life has here run riot and because of their dense growth the varieties are almost unaccountable.

Among the showier members of this very mixed growing effect, in color, brightest is purple iron weed and the helianthus.

But joe-pye weed tosses up his woolly pink head and flauntingly asks, "With that big yellow and black butterfly on my crown am I not more showy than they?" He has to be gently reminded that all his brothers are not wearing butterflies, which fact leads to a negative decision—still he is a beauty.

Then the corners festooned with clem-

atis, hop bindweed and even dodder give to the raw edges a finish that cannot be excelled. Little dots of cardinal, here and there, show a belated cardinal flower and bitter sweet just ready to open hangs over the elder bushes, which form one edge of this picture.

The paler asters in eight or ten shadings, with the exception of the New England variety, begin to fill in the neutral patches, and golden rod is waving yellow plumes here and there. It is a beautiful color, but looks rather pale compared to the later sunflowers. Boneset and yarrow and spurge each have a place, and great bunches of bedstraw fill up the crannies till not a square inch of earth is visible.

Some of the plants which help complete the perfect whole but which are less numerous and showy, are the tall dead stalks of angelica, parsnips in seed, milkweed, ragweed, mallow, nettles, vervain, blackberry, and wild rose with scarlet bolls; and this flanked on another side by the densest of willow and thorn.

Some of the finishing touches to this composite picture are the huge green dragon flies, the brilliantly colored butterflies and moths, and the catbirds and bird kindred which live in the heart of all this magnificence, but manage to keep well on the wing, especially when the sun shines bright and the air is soft and cool, and on days when a deep blue sky with great white clouds is the canopy.

MARY NOLAND.

The air is full of hints of grief,
Strange voices touched with pain—
The pathos of the falling leaf
And rustling of the rain.

—Thomas Bailey Aldrich, "Landscape."





STRIPED HYENA.
(*Hyaena striata*).

THE STRIPED HYENA.

(*Hyaena striata.*)

The first Hyena in which I became interested lived in a zoological garden connected with a well known park.

I cannot claim that she was a beautiful creature for, if all must be told, she had the same ugly appearance of every other Striped Hyena. And yet her very ugliness made her somewhat interesting. She would look at me from her slanting eyes with an unsteady, uncanny expression. Her thick head and neck, her stout body, her shorter hind legs and longer front ones, causing her back to slope from shoulder to tail like a small toboggan slide, gave her an extremely awkward look, I admit; and then she had but four toes on each foot as is the case of all members of the hyena family. Her body was covered with rather long coarse hair of a yellowish gray color striped with black, her tail was short and bushy, and along the spine the hair grew long and stiff, making a sort of mane. Her ears were large, erect and devoid of hair, and her voice—well! it was something to startle the uninitiated. There were shrieks, murmurs and growls, sometimes hoarse and sometimes shrill, and yet I am told that it is mild and musical compared with the ghostly laughter of her cousin, the spotted hyena, and yet her voice is not pleasant to hear.

In spite of all these characteristics I was interested in Mrs. Hyena, perhaps on account of her unhappy lot, for she was not loved as were other animals around her. There was Duchess, the elephant, Major, the lion, and other favored ones whose personality was recognized, as they all had names and they received much attention. But Mrs. Hyena had no name, for the keeper declared that she was such a miserably cowardly mean creature that she was not worth one.

She was only the "Hyena" to him, though he had cared for her for many years and sometimes had been obliged to put her in the hospital because her mate had mauled and punished her so badly.

And was she not to be pitied because she was so far from those of her own kind? for hyenas are not native in the new hemisphere and to seek her own, she would be obliged to cross the ocean to the coast of Africa. There she would find many of her own kind and should she cross into southern Asia as far as the Bay of Bengal she would still find many friends, while in central and southern Africa her cousin, the spotted hyena, would be plentiful, and at the south, along the western coast, her other cousin, the brown hyena, would be found.

In spite of the large area in which the various members of the family may be found a traveler may be in the country some time without seeing one, for they are nocturnal in their habits, hiding by day in their haunts among the rock-cut tombs in Syria and Palestine or among holes and caves in the rocks in other countries, sometime lurking among ruins, but more often inhabiting a den made by digging a hole in the side of a cliff or ravine.

But at night it is heard, if not seen, as it goes forth to seek its food. It prefers food already killed and only attacks a living animal when driven to it by lack of carrion. Its powerful jaws enable it to crush the bones which other animals leave. As the cleaning up of the world must be done in some way for the good of all, can we not believe that the hyena has an important mission to fulfil in spite of the strong feeling against it? It takes what other animals leave and is the vulgure among beasts.

There seems to be little known about the brown hyena. It is found in a comparatively small region and is in some respects like the spotted hyena though it is smaller, being about the size of the Striped Hyena.

The spotted hyena is the largest of the three, the most ferocious, stupid and cruel. Owing to the legs being nearly of the same length it is less awkward than the striped species.

There are no animals about whom there are so many superstitions. Even Pliny, writing in the first century, tells us that it "imitates the human voice among the stalls of the shepherds; and while there learns the name of some one of them, and then calls him away and devours him." It is also said that coming in contact with its shadow, dogs will lose their voice, and that, by certain magical influence "it can render any animal immovable round which it has walked three times." The Arabs "believe that people who partake of the brain of the hyena become insane, and the head of a hyena is always buried lest it should be used by wicked sorcerers for their diabolical charms."

They also believe that the hyena "are sorcerers in disguise, who assume human shape by day and prowl around as hyenas by night, working destruction upon good people."

The stories of the body snatching propensities of the Striped Hyena are much exaggerated. If this occurs at all it is when the body is very lightly covered with sand and when other food is lacking.

The dislike for the hyena seems to exist wherever the animal is found. In many parts of India, when killed, the body is treated with every mark of indignity and then burned.

And yet the striped species is capable of great attachment. Colonel Sykes states that "in certain districts in central India it is as susceptible of domestication as ordinary dogs." And Dr. Brehm, who found every created animal interesting, once had two young hyenas for pets; but I will give the narration in his own words. "A few days after our first

arrival in Khartoum we purchased two young hyenas for a price equal to twenty-five cents in American money. The animals were about the size of a half-grown terrier, clothed in a very soft, fine woolly fur of dark gray hue and they were very spiteful, notwithstanding they had enjoyed human society for some time. We put them in a stable and I visited them daily. At first they were addicted to vicious biting, but repeated sound blows overawed their resistance, and three months after the day of purchase I could play with them as I would with a dog, without having to fear any mischief on their part. Their affection for me increased every day and they were overjoyed when I visited them. When they were more than half grown they signified their pleasure in a very strange manner. As soon as I entered the room they rushed at me with a joyous howl, put their fore paws on my shoulder and sniffed my face.

"Later on I led them by a single string through the streets of Cairo, to the horror of all good citizens.

"They were so affectionate that they often paid me a call without being invited and it made a surprising as well as uncanny impression on strangers to see us at the tea table. Each of us had a hyena at his side and the animal sat on his haunches as quietly and sensibly as a well behaved dog who pleads for a few scraps at the table. The hyena did that also, and their gentle request consisted of a low but very hoarse cry. They expressed their gratitude either by the same sounds and actions they used in greeting me as above described, or by sniffing my hands.

"They were passionately fond of sugar, but also had a great liking for bread, especially if it was soaked in tea. Their usual food was Pariah dogs, which we shot for the purpose. My pets were on good terms with each other. If one were absent for any considerable length of time there was great joy when the two met again; in short, they proved to me quite conclusively that even hyenas are capable of warm attachment."

JOHN AINSLIE.

A BIRD INCIDENT.

A common bird with us is the pheasant and one of the most interesting incidents of my life was in connection with a family of pheasants.

Crossing a woodland one summer evening, making the dead leaves rustle beneath my feet, I looked down, I hardly know why, but it must have been in order to save the little innocents. For the brown leaves seemed to me to be alive, very much alive, indeed.

I stopped, dropped to a sitting posture, and reached forth my hand, and to my surprise they never tried to get away, but cuddled up in a little frightened flock right to my feet. I gathered them all into my dress, twelve of them, cunning little midgets, not larger than the end of a man's thumb, and awaited developments.

The parent birds were near and soon the mother began crying with a pitiful call. I couldn't imitate it in any way, but

it expressed tenderness, concern and fear. Soon an angry frightened bird whirled over my head, again and again, each time nearer until she almost knocked off my hat; she passed and getting just in front of me, made feint of a broken wing, and lay apparently helpless a little ahead. I never saw anything more expressive of anxiety than the actions of this bird. I could not bear to tease her, so setting the birdlings on the ground I withdrew to a position where I could see the united family and watched the mother love as it went out to the helpless brood. The words of the Master, "Oh, Jerusalem! Jerusalem! how often would I have gathered thy children together even as a hen gathereth her chickens and ye would not," never before came to me with such force. Truly the maternal instinct, next to love of the Divine, is the most sacred thing in the world.

MARY NOLAND.

GROUSE.

The name Grouse is supposed to come from gorse—furze or heath—and is applied to many game birds in the family Tetraonidae.

The great majority of Grouse belong to the northern part of America, but in England the Grouse may be said to have had an effect upon history, as parliament used always to rise when the season for shooting Grouse arrived!

The red Grouse is indigenous to Great Britain, but is represented in other northern countries by the Willow Grouse, which assumes a protective white color in winter, except that the tail remains black.

The Ruffed Grouse, or pheasant, has caused much dispute in reference to how it produces the drumming sound which can be heard at a long distance, and which musical exercise is no doubt intended as a noisy courtship in wooing his mate.

The distinctive name, "Ruffed," comes from the ruff of dark feathers, with iridescent green and purple tints which

surrounds the neck. This bird has a slight crest and a beautifully barred tail. Its note is a hen-like cluck. No bird has handsomer eyes, with their deep expanding pupils and golden brown iris.

In a beautiful ravine—which was carpeted with green moss a foot deep and shaded by evergreen trees hung in soft gray mosses—on an uninhabited island in northern Lake Superior, I once saw some Canada Grouse so tame that it appeared as if they might easily be taken in one's hands. The parent birds were on one side of the trail, the young ones in a tree on the other side. All kept quite still for me to look at them, only the young ones lifted their wings slightly, as if wishing to fly across to their parents, who seemed to have an expression as of astonishment at seeing so strange a sight as a human being in their unfrequented solitudes. The gentlemen of our camping party declared that these Grouse were so tame it would seem a crime to shoot them.

THE GIRAFFE.

(*Camelopardalis giraffa*.)

Should a traveler returning from a far country describe a wonderful animal, with the head and body of a horse, neck and shoulders of a camel, ears of an ox, the tail of an ass, the legs of an antelope, and the coloring and marking of a panther, he would be believed with difficulty, and yet this combination very fairly describes the curious and interesting animal known to us as the Giraffe.

This name is a corruption of the Arabian *serafe*, the lovely one, and while a single animal, away from its natural surroundings, may not seem to merit the appellation, in its native woods it produces a very different impression.

The Giraffe is found in a wide curve, extending over the eastern half of Africa from Ethiopia as far south as the confines of Cape Colony. Within this area it frequents the sandy, desert-like portions where small trees and shrubs abound.

Hunters and explorers describe with enthusiasm the appearance of the herds of Giraffe, which are sometimes in groups of six or eight, but more frequently found in larger numbers, often as many as thirty or forty being together, while one traveler in the Soudan counted on one occasion seventy-three, and at other times one hundred and three and over one hundred and fifty in one herd.

Gordon Cumming tells us that "when a herd of Giraffes is seen dispersed in a grove of the picturesque, umbrella-shaped mimosas, which adorn their native plains, and on the topmost branches of which their immense height enables them to browse, the observer would really be deficient in appreciation of natural beauty if he failed to find the sight a very attractive one."

The Giraffe is curiously like the natural objects of the locality in which he lives. He is found in stretches of coun-

try where half decayed, weather beaten, moss covered trees resemble the long necks of the animal; so much so that Cumming says he was often in doubt as to the presence of a whole troop of Giraffe until he had used his spyglass, and he adds: "Even my half-savage companions had to acknowledge that their keen, experienced eyes were deceived sometimes; either they mistook those weather beaten trunks for Giraffes, or else they confounded the real Giraffes with the old trees."

Though found in wooded sand belts which are waterless a portion of the year, the animal of necessity avoids the tall, dense forests, for its food is chiefly the tender leaves and buds of low-growing trees, especially the leaves of the mimosa and of the prickly acacia.

These trees are seldom more than twelve or fifteen feet in height, and with its long legs and neck the Giraffe can easily reach the appetizing twigs and leaves on the broad flat top of the tree. Moving from one side to another, as if the tree were a table spread for its use, it throws out its long snake-like tongue, which it can manipulate with great dexterity and which it uses as an elephant does its trunk. When we remember that the largest animals are sometimes eighteen feet in height, and that the tongue is seventeen or eighteen inches in length, we can see how easily the Giraffe can take its breakfast, while the tree that furnishes it serves also as a screen or shield to conceal it from its enemies.

From the fact that the giraffe will abide in localities which are waterless for months at a time, it has been supposed that water was not necessary for its comfort. This is far from the truth, and it has frequently been seen to drink; its appearance when drinking is most



peculiar, and one who has witnessed the curious operation tells us that although the animal's neck is so long, it can not reach the water without straddling its legs wide apart. This it does by placing one foot forward and the other as far back as possible, increasing the distance between them by a series of little jerks, and sometimes they sprawl their legs out sideways in a similar manner.

It is at the watering place that the lion lies in concealment waiting for the Giraffe to appear. Should it remain unconscious of the lion's presence, the victory is to the lion, but in the open the Giraffe has an equal chance with the "king of beasts," for it can defend itself valiantly and successfully with vigorous blows from its powerful limbs. The small horns are not used as a means of defense; they are covered with skin, and at birth the bones are separate, becoming attached to the skull at a later period, while the third small horn, especially observable in the male, is really no horn at all but only a thickening of the bone at that point.

The head of a Giraffe is really a thing of beauty. On account of the delicate contour of the muzzle the head appears longer than it really is. The nostrils can be opened and closed at will, making it possible to avoid injury from the sand storms which sometimes prevail. The eyes are the largest for the size of the head of any animal and are wonderfully gentle, lustrous and beautiful. They are also capable of some lateral projection so that to a degree the animal can see behind it without turning its head.

Notwithstanding the extreme length of the neck of the Giraffe it contains but seven bones, the same number as man.

Its sloping back has led some people to suppose that the legs were uneven in length; this is an error, as the legs are about the same length and the feet have delicate, beautifully shaped, divided hoofs.

The tail of the animal is long and finished with a generous tuft of hair with which it relieves itself of the seroot flies and other stinging insects which otherwise would become unbearable.

Like the American bison the Giraffe is in danger of extermination. It originally had a larger range but has been

killed in great numbers. The temptation to hunt the animal is not to be resisted, as the hide of the bull brings from twenty to twenty-five dollars, the flesh is very fine eating and the other parts of the body can be put to various uses; the Arabs use the tendons of the legs for sewing leather, the tail-tufts are used for fly brushes and the solid leg bones are in England made into buttons and other bone articles.

The Giraffe is difficult to approach for it is extremely wary, and will place sentinels to give the herd warning of approaching danger. It is a rapid runner, although its gait is shambling and peculiar owing to the fact that it moves like a pacing horse, the fore and hind legs of the same side moving together.

It is usually hunted on horseback and the animal must be pressed from the moment he starts; "it is the speed that tells against him, and the spurs must be at work at the commencement of the hunt and the horse pressed along at his best pace; it must be a race at top speed from the very start, for should the Giraffe be allowed the slightest advantage for the first five minutes the race will be against the horse."

Europeans and natives alike are fascinated with Giraffe hunting, though few fail to be struck with the pathetic and half-reproachful expression of a fallen animal and few hearts are so hardened as to feel no compunction at "destroying one of the noblest specimens of nature's handiwork."

Mr. Selous, after hunting one day, in recounting his experiences says: "Even in the ardor of the chase it struck me as a glorious sight to see those huge beasts dashing along in front, clattering over the stones or bursting a passage through opposing bushes, their long, graceful necks stretched forward, sometimes bent almost to the earth to avoid horizontal branches, and their bushy black tails twisted over their backs. And how easily and with what little exertion they seemed to get over the ground, with that long, sweeping stride of theirs!"

The skin of the Giraffe is in many parts so thick that a bullet will not pierce it, and the surest method of hunting it is that pursued by some of the Arabs of Abyssinia who run it down while gal-

loping at full speed and with their broad-swords cut the tendons of its legs, thus completely disabling it. Although the natives love to hunt the animal they love still more to own a living one and their heads may often be seen peering over the inclosure in the native villages.

In 1836 four Giraffes were successfully taken to the zoölogical gardens at Regent's Park, London. From this time they became somewhat common in menageries so that many people have seen

the living animal, but all view it with curiosity as did the old Romans in the time of Julius Cæsar, when individuals were brought to Rome on the occasion of the games. And it is not strange that at a later date the picture of this curious and then unknown animal, found on Egyptian monuments, were pronounced "a dream fancy of an unbridled artistic imagination."

JOHN AINSLIE.

THE FLAG.

I plucked a flag, half open
To the sunlight it waved and blew,
And bent o'er the water beside it
Where the sweet pond-lilies grew.
The stem broke short in my fingers,
The bloom remained in my grasp,
But the life of the swaying pretty thing
I tried in vain to clasp.

The breezes were floating gently by
The calm, peaceful waters reflected the sky;
The flag-stalk nodded its flowerless head,
In my hand lay the blossom withering, dead.

I stood for a moment longing
As I seldom had longed before,
Longing for even the life that was gone
To return to that flower no more.
But the breezes bent over me softly
And whispered, the lost is found,
For whatever you pluck from the surface
Is restored once more in the ground;

For the gardens of earth hold blossoms more fair
Than the one you have plucked and are holding there.

—Ella Van Fossen.

IN THE HOLLOW OF HIS HAND.

(From an Ornithologist's Year Book.)

So tiny that a child's small palm can cover its whole body, inaudible at a few paces' distance, invisible till it rises at your very feet, such is our yellow-winged sparrow. Yet he is a marvel; his plumage shows an exquisite mimicry of the earth tints, "the upper parts mixed black, rufous-brown, ashy and cream-buff," with a touch of "yellowish olive-green" for the herbage, and here and there an orange or yellow shade, and a dusky whiteness beneath, to give the effect of light. What could be more perfect? No wonder the wee householders, with a nest of fine-woven grasses, low upon the ground, sits unseen on her "clutch" of wee speckled eggs within reach of your fingers. She knows this well, and will not rise until you are almost upon her retreat. Nor will she fly far. A fence post, a low shrub will serve as her watchtower until danger is over.

Our yellow-tinted sparrow has another name, the "Grasshopper Sparrow," from its insect-like tremolo and chirp. Its song is a chord or two and a long trill on the insect letter, z. It is sung, to the eye, with a hearty abandon of joy, the head thrown back and mouth open, in a fine pose of ecstasy; yet, unless all around is

still, and you listen with attention, not a sound will you hear, so small and fine are the vibrating tones. It is said, in a story of the Highlands, that on certain nights, if a man will but lay a couchant ear close to the breast of the earth, he may hear the fine, fine piping of the fairy tunes played in the underworld. Our bird's song is one of these faint, sweet voices of the earth, like the music that breathes from every clod or leaf when the old world lies dreaming and dozing in a bit of holiday after work is done on a warm, sunny afternoon in autumn, a musical, tremulous, sweet piping everywhere.

Yet not one of these small creatures is forgotten before its Father. When the frost is in the air, and winter is near, the Divine impulse stirs in its breast, and its little wings will bear it far, far away in the long, mysterious journey over sea to the warm islands of the Atlantic. There it will sing for joy with its fellows in the sun, but when April returns, look well. Is there not a stir in the short grass? And listen. The faint, dream-like thrill throbs again in the throat of the sparrow, and our ground-dweller has returned. It is a parable of God's care for His little ones.

ELLA F. MOSBY.

SONG OF THE STORMY PETREL.

When in the hollow of His hand
All calm doth lie the deep,
Alone and out of sight of land,
Upon the wave I sleep;
Above, the sun resplendent shines;
Beneath, old ocean heaves;
I feel alike the smile of heaven
And some great heart that grieves.

I drift afar by sun and star;
I care not where I be
So long as throbs the giant flood
Of ocean under me.
The ancient sea my brother is
And well I know his moods;
For everywhere with him I fare
Throughout his solitudes.

I lay my heart unto his heart,
I soothe him with my wing;
I kiss the tide as I were bride,
And to him low I sing.
He speaks to me of mystery,
Of days when he was young,
Of sorrows old, of tales untold
By any other tongue.

I listen, yearn, and much I learn
Of nations now no more,
Of wrecks that sleep down in the deep
Or strew the rocky shore;
Of how grim Time makes him to mar
Whatever coast he laves.
Of how the sea he makes to be
So full of nameless graves.

Since goaded long by lashing winds,
He rushes forth in ire,
And welds as one the ships of Clyde
With those of crumbled Tyre;
And swallows down the king and clown
With equal appetite,
And hides them all, both great and small,
In his wide tombs of night.

Then screaming I above him fly
And hasten where he roars,
Within my breast the same unrest
As his proud bosom gores.
A thousand leagues I go with him
And glory in his power,
A thousand leagues I herald him
Through many a sleepless hour.

Then, calmer grown, we dream again,
And in some distant zone
A little season are as one,
Untroubled and alone.
For I am brother to the sea
And where he goes go I,
And when at last my days are past,
Within his breast I lie.

And I shall ever haunt his paths
About this aging earth,
And he to me, and I to him,
Shall sing of woe and mirth
Until gray Time shall be no more,
And every wave that weeps
Has learned to laugh and laughing, thrills
The bosom of the deeps.

—C. G. B. in "*The Chicago Record*."





MIRIKI SPIDER MONKEY
(*Ateles hypananthus*)

AMERICAN MUSEUM OF NATURAL HISTORY, NEW YORK

THE SPIDER MONKEY.

(*Ateles hypoxanthus*.)

With his native guides a gentleman was traveling one day through one of the wonderfully luxuriant tropical forests of eastern Brazil. They had left the Amazon river and had come southeast to the province of Maranhao, where the roots, grasses and plants sometimes weave themselves into vegetable bridges so solid that a man may go some distance without discovering that he has left the firm earth.

They had just passed over one of these natural bridges and had evidently reached the edge of the hidden pool, as they came to a dense growth of rosewood trees, and there they saw a most unique and peculiar sight. The gentleman, being a stranger in Brazil, exclaimed with astonishment, for hanging from the branches by their tails only, were a whole troop of monkeys.

They were of slender build, with long, thin, sprawling limbs and small heads, and they were indeed a most laughable and comical sight.

As soon as the gentleman recovered from his surprise he fired upon the troop and succeeded in slightly wounding one which so maimed it that, uttering a loud yell, it fell to the ground and he was able to secure it. The others, frightened, quickly vanished, for their movements were of surprising agility; they threw their long limbs about in the queerest sort of a manner, using their tails in climbing more than their limbs, seeming to feel their way with the tip of the tail and finding a place for support, they swung themselves rapidly to the extreme tree tops and were out of sight in less time than it takes to describe their flight.

When the troop could no longer be seen the gentleman examined his wounded captive and from what he knew of the characteristics of the ape family, to which all monkeys belong, he decided that without question he had secured a specimen of the Spider Monkey.

It was a young mother and the baby

monkey was clinging to her with its little arms around her neck and legs around her hips in a way not to impede her motions.

She was carefully examined by her captor and he soon decided that the wound was not dangerous and that with care he might be able to take her with her baby back with him to the United States.

So she now received the best of care. She was secured with a rope attached to a bit of silken handkerchief which was carefully fitted to her leg and soon recovering (for her captor was a skillful surgeon) she became the pet of the company.

In length she was about four feet four inches and she was covered with a dull yellowish woolly fur. Her face was quite brown, which proved that she was still young, for the face grows dark gray in old age. In examining the forepaw, in order to find a thumb, nothing was there except a short stub devoid of a nail; her nose was broad and flat and she had thirty-six teeth.

Surely she was a Miriki Spider Monkey and a fine specimen at that, but as this variety is usually found only farther south in Brazil, her captor was especially pleased to secure her.

It would take a long time to narrate all the interesting things which one could say about her, but I must tell you what a devoted and lovely mother she was to her helpless little baby. It was as funny a little thing as you can imagine, ugly as possible, with proportionately long arms and legs and a face so old looking and wrinkled that it reminded one of an antiquated grandfather rather than of an infant monkey. She would continually pet this little monster, lick its body, hug it and fondle it; she would hold it in both hands as if admiring it and then would rock it to sleep in her arms. The children of royalty could not have more tender care and attention than the little Brazilian monkey gave her offspring.

As it grew she allowed it a little freedom, and usually it was very docile, obeying her every call; but when disobedient she would slap it and give it a box on the ear; but this seldom happened, for a monkey child is a model child and might serve as an example to many human children.

But I think you would have found it extremely odd could you have seen her eat. She would frequently take fruit, or anything offered, with her long, prehensile tail and curling the end around the object, would convey it to her mouth. She would eat almost everything eaten by her captors, but would not reject an occasional insect, spider, or even a young bird.

Happiest when permitted to hang on the tree boughs, she would drink from the overhanging branches without touching the ground. In fact she was only perfectly at home when climbing around the trees, as she was comparatively awkward when on the ground, walking on all fours in a somewhat clumsy manner. Like all Spider Monkeys, she was of a gentle, teachable disposition, for all South American monkeys lack many of the mischievous and disagreeable traits of their African cousins, though as a rule they

are not as bright and vivid in color and are duller and more indolent in their nature.

On the other hand the American monkeys do little damage to man, for the vast forests which form their home (they are found in the warm countries of Mexico, Central and South America, and never in a very high altitude) provide for them so fully that they have no need of man's help. The natives depend very much on monkey meat as a food and hunt them with bow and arrows, while travelers are often obliged to subsist upon monkey roasts for weeks together and do not find them very bad fare.

Aside from the Miriki Spider Monkey, of which our little mother was so interesting a specimen, the traveling party from time to time encountered other species of the Spider Monkey, of which there are many. All have similar characteristics but vary somewhat in size and color.

You will be interested to know that the monkey mother and her funny baby were finally brought in safety to the United States, where as far as I know, they are still living and are happy and much treasured pets.

JOHN AINSLIE.

NOVEMBER.

Though I sorrow it to say,
November is a churl alway,
Miserly, beside the fire,
Just outside the echoing choir,
Sits he peevishly, and ponders
On this life and all its wonders,
Hearing through the grudging screen
Organ notes, that slip between
Prayers for dead men and dead hopes,
While the priests, in 'broidered copes,
Sing to heaven; yet not for him
Goes up the incense or the hymn.

Fie, November!

—Walter Thornbury, "The Twelve Brothers."



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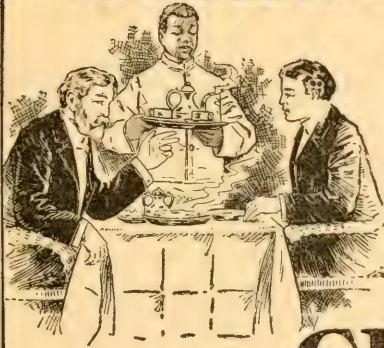
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William Kerr Higley, who edits BIRDS AND NATURE, certainly deserves a special meed of credit for the contents and arrangement of the September issue. Bird lovers cannot fail to be delighted with it. The pictures in remarkably life-like colors, and the descriptions of the Indian elephant, the walrus, the Bengal tiger, the Parula warbler, the white-throated sparrow, and the two species of humming birds, are such as can be found in no other publication, and the intermediary verses and quotations are exceedingly interesting. Every one of this magazine's current features is so appropriate as to seem "made for" the amplification of that vast subject, "Birds and Nature."

The Boston Globe, Oct. 3, 1901.

To my knowledge the magazine hasn't its equal.
Meriden, Conn., Sept. 14, 1901.

C. A. Burgdorf.

Please find enclosed \$5 for BIRDS AND NATURE beginning January, 1897, to date and the remainder of 1901.

Albert A. Bott.

Rochester, N. Y., Sept. 16, 1901.

I am a subscriber of your magazine BIRDS AND NATURE. I think a great deal of it.

Paullina, Ia., May 22, 1901.

Chas. W. Ihle.

Enclosed find \$1.50 for BIRDS AND NATURE, year ending December, 1901. Commencing with the current number I desire you to drop my name as a subscriber and substitute the name of my nephew, Homer H. Cole. I may thus encourage his study of nature by having your publication sent to him direct.

F. L. Van Tassel.

Passaic, N. J.

Enclosed find \$1.50 for year's subscription to BIRDS AND NATURE. I am much pleased with the book. The pictures are very life-like and the articles are most interesting and instructive.

P. J. Casey.

Bloomington, Ind.

Your bird pictures are the only ones, not paintings, that I have ever seen where the colors were anything like natural; but if your pictures are not perfect they are near enough to be called so.

W. M. Buswell.

Charlestown, N. H., May 14, 1901.

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By ELIZABETH and JOSEPH GRINNELL

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Supt. W. A. Smith, whose articles on the subject during the past year have attracted much attention, will, in a series of articles on United States History, give practical and helpful advice to teachers on methods of work, conducting lessons, etc. These articles will be designed especially to help the grade teachers whose resources are limited.

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- 301 Weasel (Ermine).
- 302 Medicinal Plant: Quince.
- 303 Quartz.
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- 308 Gopher.
- 309 Mink.
- 310 Carbons.
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- 312 Yellow Ladies' Slipper and Painted Cup.
- 313 Peacock.
- 314 Willow Ptarmigan.
- 315 Stellar's Jay.
- 316 Ruddy Duck.
- 317 Muskrat.
- 318 Medicinal Plant: Poppy.
- 319 Primrose.
- 320 Copper and Lead Ores.
- 321 American Bittern.
- 322 Scarlet Ibis.
- 323 Massena Partridge.
- 324 Ring-billed Duck.
- 325 Medicinal Plant: Thyme.
- 326 Bloodroot.
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- 404 Dovekie.
- 405 Beaver.
- 406 Marine Shells.
- 407 Fruit: Lemon.
- 408 Medicinal Plant: Cubebs.
- 409 Audubon's Oriole.
- 410 Marbled Godwit.
- 411 Rusty Blackbird or Grackle.
- 412 Surf Scoter.
- 413 American Elk.
- 414 Nautilus Shells.
- 415 Flowers: Mountain Laurel.
- 415 } Trailing Arbutus.
- 416 Medicinal Plant: Hops.
- 417 Bullock's Oriole.
- 418 Sanderling.
- 419 Great Northern Shrike.
- 420 Brandt's Cormorant.
- 421 Buffalo.
- 422 Agates.
- 423 Flowers: Great Mullein.
- 423 } Moth Mullein.
- 424 Medicinal Plant: Cocoa Fruit.

BIRDS AND NATURE.—Continued.

AUGUST, 1898.

- 177 Wilson's Tern.
- 178 Coyote.
- 179 Fox Squirrel.
- 180 Loon.
- 181 Butterflies, Second Series.
- 182 American Red Fox.
- 183 Least Sandpiper.
- 184 Mountain Sheep.

SEPTEMBER, 1898.

- 185 American Herring Gull.
- 186 Raccoon.
- 187 Pigmy Antelope.
- 188 Red-shouldered Hawk.
- 189 Butterflies, Third Series.
- 190 American Gray Fox.
- 191 Gray Squirrel.
- 192 Pectoral Sandpiper.

OCTOBER, 1898.

- 193 King Bird of Paradise.
- 194 Peccary.
- 195 Bottle-nosed Dolphin.
- 196 Tufted Puffin.
- 197 Butterflies, Fourth Series.
- 198 Armadillo.
- 199 Red-headed Duck.
- 200 Golden Rod.

NOVEMBER, 1898.

- 201 Prairie Sharp-tail Grouse.
- 202 Brown and Red Bat.
- 203 American Otter.
- 204 American Golden Plover.
- 205 Moths.
- 206 Canadian Porcupine.
- 207 Caspian Tern.
- 208 Flowering Almond.

DECEMBER, 1898.

- 209 African Lion.
- 210 Cacti.
- 211 Flying Squirrel.
- 212 Humming-Birds.
- 213 Silkworm.
- 214 California Vulture.
- 215 American Goldeneye.
- 216 Skunk.

JANUARY, 1899.

- 217 Chimpanzee.
- 218 Puma.
- 219 Lemon.
- 220 American Mistletoe.
- 221 Nuts.
- 222 Whippoorwill.
- 223 Snapping Turtle.
- 224 Sandhill Crane.

FEBRUARY, 1899.

- 225 Ginger.
- 226 Crab-eating Opossum.
- 227 Geographic Turtle.
- 228 White Ibis.
- 229 Iris.
- 230 Duck-billed Platypus.
- 231 Cape May Warbler.
- 232 The Cooanut.

MARCH, 1899.

- 233 Tufted Titmouse.
- 234 Northern Hare.
- 235 Pineapple.
- 236 Hooded Merganser.
- 237 Cloves.
- 238 Common Ground Hog.
- 239 Common Mole.
- 240 Azalea.

APRIL, 1899.

- 241 Nutmeg.
- 242 American Barn Owl.
- 243 Kangaroo.
- 244 Hoary Bat.
- 245 Nashville Warbler.
- 246 English Grapes.
- 247 Swift Fox.
- 248 Hyacinth.

MAY, 1899.

- 249 Cedar Waxwing.
- 250 Hyrax.
- 251 Coffee.
- 252 Bonaparte's Gull.
- 253 Common Baboon.
- 254 Grinnell's Water Thrush.
- 255 Hairy-Tailed Mole.
- 256 Cineraria.

JUNE, 1899.

- 257 A Feather Changing from Green to Yellow.
- 258 Western Yellow-Throat.
- 259 Myrtle Warbler.
- 260 Blue-winged Yellow Warbler.
- 261 Golden-winged Warbler.
- 262 Mourning Warbler.
- 263 Chestnut-side Warbler.
- 264 Black-throated Blue Warbler.

SEPTEMBER, 1899.

- 265 Pointer Dog.
- 266 Shells.
- 267 Marbles.
- 268 Ores.
- 269 Minerals.
- 270 Water Lilies.
- 271 Yellow Perch.
- 272 Beetles.

OCTOBER, 1899.

- 273 Forests.
- 274 Grand Cañon.
- 275 Terraced Rocks, Yellowstone Park.
- 276 Rooster and Hen.
- 277 Oil Well.
- 278 Polished Woods.
- 279 Brook Trout.
- 280 Niagara Falls.

NOVEMBER, 1899.

- 281 Lady-Slipper.
- 282 Tea.
- 283 Towhee.
- 284 Canary.
- 285 Carolina Parakeet.
- 286 Chipmunk.
- 287 Peach.
- 288 Common Minerals and Valuable Ores.

DECEMBER, 1899.

- 289 Narcissus.
- 290 Coca.
- 291 Red-tailed Hawk.
- 292 Maryland Yellow-Throat.
- 293 Lyre Bird.
- 294 Cow Bird.
- 295 Wild Cat.
- 296 European Squirrel.

JANUARY, 1900.

- 297 Virginia Rail.
- 298 Blue-winged Teal.
- 299 Yellow-headed Blackbird.
- 300 Black Squirrel.
- 301 Weasel (Ermine).
- 302 Quince.
- 303 Quartz.
- 304 Lily of the Valley.

FEBRUARY, 1900.

- 305 Killdeer.
- 306 Cinnamon Teal.
- 307 Clapper Rail.
- 308 Gopher.
- 309 Mink.
- 310 Carbons.
- 311 Licorice.
- 312 Yellow Lady-Slipper and Painted Cup.

MARCH, 1900.

- 313 Peacock.
- 314 Willow Ptarmigan.
- 315 Stellar's Jay.
- 316 Ruddy Duck.
- 317 Muskrat.
- 318 Poppy.
- 319 Primrose.
- 320 Copper and Lead.

APRIL, 1900.

- 321 American Bittern.
- 322 Scarlet Ibis.
- 323 Massena Partridge.
- 324 Ring-billed Duck.
- 325 Thyme.
- 326 Bloodroot.
- 327 Western Blue Grosbeak.
- 328 Shells.

MAY, 1900.

- 329 Magpie.
- 330 Red-breasted Nut-hatch.
- 331 Purple Martin.
- 332 Ring-necked Dove.
- 333 Opossum.
- 334 Genista.
- 335 Digitalis.
- 336 Raven.

JUNE, 1900.

- 337 Wilson's Thrush.
- 338 Red or Wood Lily.
- 339 Common Sunfish.
- 340 A Mountain River.
- 341 Insects.
- 342 Brittany—(Cows).
- 343 Harvesting in the Great Northwest.
- 344 Homing Pigeon.

SEPTEMBER, 1900.

- 345 Swamp Rose Mallow.
- 346 Yellow Ladies' Slipper.
- 347 { New England Aster.
- 347 { Late Purple Aster.
- 348 Wild Yellow or Canadian Lily.
- 349 Vesper Sparrow.
- 350 Calico Bass.
- 351 Mountain Lake.
- 352 Banana.

OCTOBER, 1900.

- 353 Oswego Tea or Bee Balm.
- 354 { Fringed Gentian.
- 354 { Closed or Blind Gentian.
- 355 { Tall or Giant Sunflower.
- 355 { Black-eyed Susan or Ox-eye Daisy.
- 356 Wild Columbine.
- 357 American Redstart.
- 358 Trout.
- 359 Ocean Waves.
- 360 Domestic Fowls.

NOVEMBER, 1900.

- 361 Western Willett.
- 362 Buffle-Head.
- 363 American Eared Grebe.
- 364 Louisiana Tanager.
- 365 Luna and Polyphemus Moths.
- 366 Prong-Horned Antelope.
- 367 Sensitive Plant.
- 368 Almond (Leaf, Flower and Fruit).

DECEMBER, 1900.

- 369 Western Horned Owl.
- 370 Long-crested Jay.
- 371 Fulvous Tree-duck.
- 372 Red-breasted Sapsucker.
- 373 Promethean and Cecropian Moths.
- 374 Irish Setter.
- 375 Pitcher Plant (Nepenthes).
- 376 Mandrake (Rhizome, Leaf, Flower and Fruit).

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N. B.—Mr. Giles was for twenty years engaged in educational work in Minnesota.

BIRDS AND NATURE.—Continued.

JANUARY, 1901.

- 377 Hawk Owl.
- 378 Knot or Robin Snipe.
- 379 White-winged Crossbill.
- 380 Townsend's Warbler.
- 381 Water Shells.
- 382 Collared Lizard.
- 383 Fruit: Apple.
- 384 Vanilla Plant.

FEBRUARY, 1901.

- 385 American Rough-legged and Young Red-tailed Hawks.
- 386 Short-billed Dowitcher.
- 387 Great-tailed Grackle.
- 388 Hooded Warbler.
- 389 Land Shells.
- 390 Gila Monster.
- 391 Cassia Cinnamon Plant.
- 392 Fruit: Pomegranate.

MARCH, 1901.

- 393 Owl Parrot.
- 394 Gray Parrot.
- 395 White Pelican.
- 396 Marbled Murrelet.
- 397 Black Bear.
- 398 Pond and River Shells.
- 399 Fruit: Orange.
- 400 Medicinal Plant: Pepper.

APRIL, 1901.

- 401 Crested Carrasaw.
- 402 Harlequin Duck.
- 403 Canada Grouse.
- 404 Dovekie.
- 405 Beaver.
- 406 Marine Shells.
- 407 Fruit: Lemon.
- 408 Medicinal Plant: Cubebs.

MAY, 1901.

- 409 Audubon's Oriole.
- 410 Marbled Godwit.
- 411 Rusty Blackbird or Grackle.
- 412 Surf Scoter.
- 413 American Elk.
- 414 Nautilus Shells.
- 415 Flowers: Mountain Laurel, Trailing Arbutus.
- 416 Medicinal Plant: Hops.

JUNE, 1901.

- 417 Bullock's Oriole.
- 418 Sanderling.
- 419 Great Northern Shrike.
- 420 Brandt's Cormorant.
- 421 Buffalo.
- 422 Agates.
- 423 Flowers: Great Mullein, Moth Mullein.
- 424 Medicinal Plant: Cocoa Fruit.

SEPTEMBER, 1901.

- 425 Anna's Hummingbird.
- 426 Rufous Hummingbird.
- 427 White-throated Sparrow.
- 428 Parula Warbler.
- 429 Tourmaline.
- 430 Indian Elephant.
- 431 Walrus.
- 432 Bengal Tiger.

OCTOBER, 1901.

- 433 Yellow-bellied Flycatcher.
- 434 Olive-sided Flycatcher.
- 435 Tree Sparrow.
- 436 Black-throated Green Warbler.
- 437 Beryl.
- 438 African Lion.
- 439 Alaskan Moose.
- 440 Polar Bear.

NOVEMBER, 1901.

- 441 Pine Grosbeak.
- 442 Field Sparrow.
- 443 Carolina Wren.
- 444 Black-poll Warbler.
- 445 Turquoise.
- 446 Striped Hyena.
- 447 Giraffe.
- 448 Miriki Spider Monkey.

DECEMBER, 1901.

- 449 White-eyed Vireo.
- 450 Rivoli Hummingbird.
- 451 Worm-eating Warbler.
- 452 Chipping Sparrow.
- 453 Topaz.
- 454 Rhesus Monkey.
- 455 Asiatic or Bactrian Camel.
- 456 Zebra.

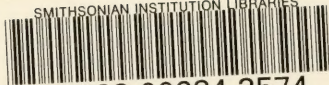
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